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Place:
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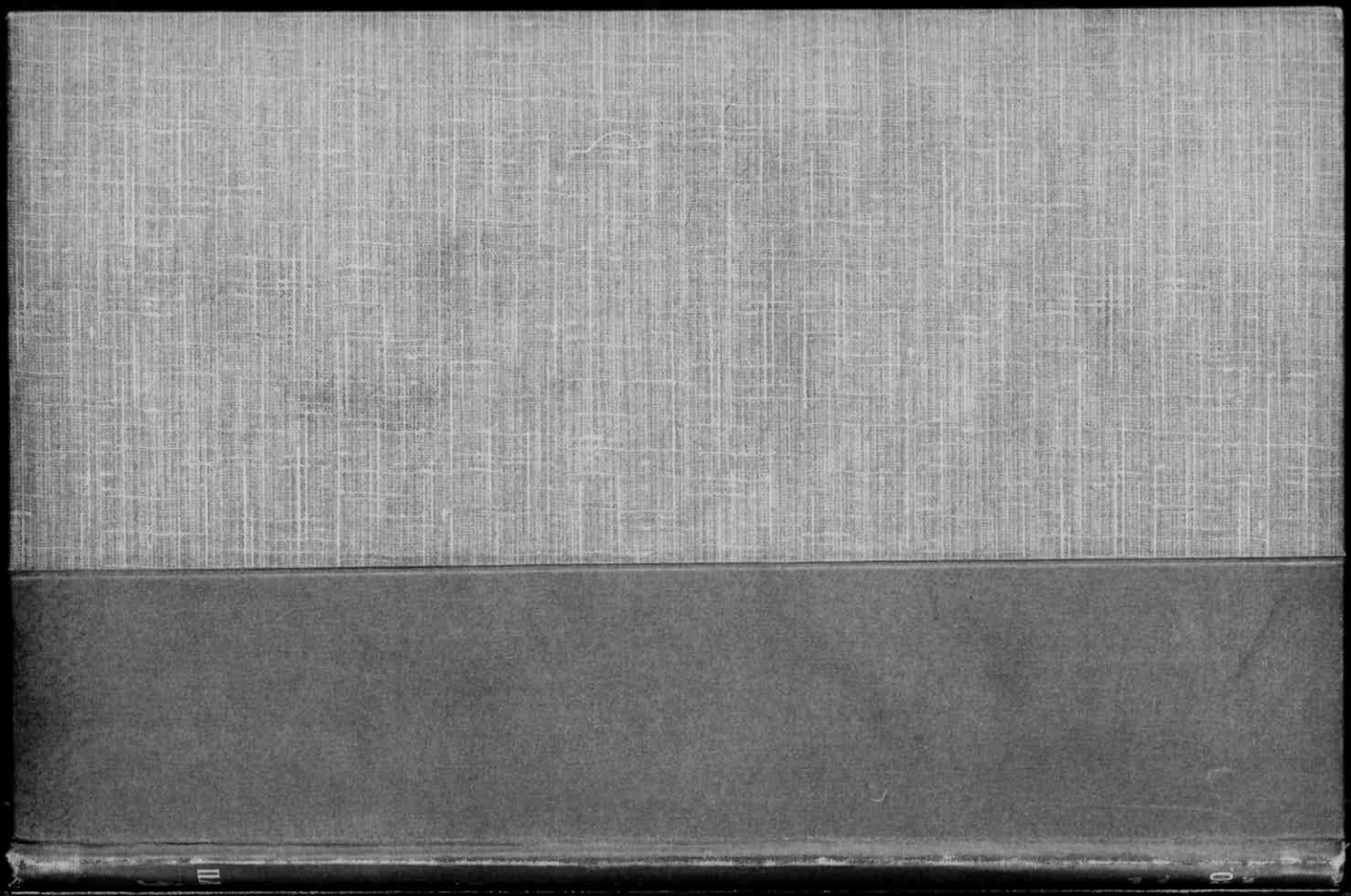

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"THE ACCOUNTANTS' LIBRARY."

VOL. XVII.

PRINTERS' ACCOUNTS

BY

H. LAKIN-SMITH

(Fellow of the Institute of Chartered Accountants in England and Wales, Fellow of the Royal Statistical Society)

Author of "Income Tax matters of Interest to Bankers, and Some Suggestions for Reform," "Income Tax Assessments: What they are and what they should be," "Income Tax and Excess Profits Duty," "Hand-book to Stamp Duties and Receipts," &c.

Of the firm of R. L. Impey, Cudworth, Lakin-Smith & Goode, Chartered Accountants, Birmingham and London.

SECOND EDITION.

LONDON:

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1916.

Business
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EDITOR'S PREFACE.

THE object of the series of handbooks that is published under heading of THE ACCOUNTANTS' LIBRARY is to provide, at a reasonable price, detailed information as to the most approved methods of keeping accounts in relation to all the leading classes of industry whose books call for more or less specialised treatment. No such series has hitherto been attempted ; but there exist, of course, numerous separate works dealing with the accounts of one particular class of undertaking. These separate works are, however, for the most part either too expensive or too superficial to answer the purpose that is particularly aimed at by THE ACCOUNTANTS' LIBRARY, which is intended to supply the student with that specialised information which he may require, while at the same time affording to the trader, banker, or manufacturer who is not in a position to secure the fullest information for his purpose, knowledge which can hardly fail to be of the very greatest assistance to him in the correct keeping of his accounts, upon a system specially adapted to his requirements, and therefore involving a minimum expenditure of labour. It is expected that the series will also be found of material assistance to bookkeepers of all classes.

Without aiming at giving an exhaustive account of the manner in which each separate business is conducted, the technical points in connection with each industry receive as much attention as is necessary in order fully to elucidate the system of accounts advocated, while each volume is the work of one who has made that particular class of accounts more or less a speciality. It is obvious, however, that to enable the necessary ground to be covered in the space

available, it is incumbent to assume upon the part of the reader a certain knowledge of general bookkeeping. The extent of the knowledge assumed varies according to the nature of the class of accounts considered. For example, in the volumes on "Bank Accounts" and "Shipping Accounts" a thorough acquaintance with ordinary double-entry bookkeeping is not unnaturally assumed; but in the case, for instance, of "Auctioneers' Accounts," "Domestic Tradesmen's Accounts," and other similar volumes, such explanations are included as will enable the ordinarily intelligent reader fully to grasp the methods described even although his knowledge of bookkeeping may be of an elementary description. These explanations are, doubtless, superfluous as far as accountants are concerned, but are necessary to make the volumes of value to the majority of those specially engaged in these particular industries.

The whole series, comprising fifty-one volumes, forms a most valuable and complete library, dealing, at the hands of specialists, with practically every class of accounts, and illustrating the application of the theory of double-entry as described in general works on bookkeeping.

INTRODUCTION TO THE FIRST EDITION.

THERE are probably considerably more than 30,000 Printers in the British Isles, and up to the present time there has been no reliable book published, so far as the author is aware, dealing with the books and accounts which should be in use in this trade. It is sometimes said that the ordinary books of account are all that are required, but such a statement could only be made by those who have a very superficial knowledge of the subject. It is, of course, true that Ledgers, Cash Books, and Day Books are required in printing businesses, as in any other, and only comparatively few pages in this book have been devoted to these, because they should not present any difficulty to anyone who has even a slight knowledge of bookkeeping, which is assumed to be possessed by all readers of this book. However, though the ordinary books of account are similar to those of other concerns, this cannot be said of the other books necessary to the successful conduct of a printing business, and a considerable space has been therefore allotted to the endeavour to give a lucid explanation of these. Competition in this trade is now so keen that absolutely reliable methods of estimating, of arriving at the actual cost of jobs after their completion, of proving stocks, and obtaining frequent trading results, are of paramount importance.

Such, then, is the justification for the publication of this work, which has been prepared so that it shall not only be of service to accountants, but also to Printers themselves. The

forms of ruling for the books required have been included and full explanation given, and, so that the portion of the book dealing with Cost Accounts shall be perfectly clear, a sample order has been carefully traced through the works, including every department to which it would go in process of manufacture.

In the course of this work it will be found that many trade matters have been included which are outside the ordinary scope of accountancy, but which have been mentioned for the sake of completeness. All these points have been referred to experts in the trade, so that the possibility of error might be guarded against. The book will therefore be found thoroughly practical. It should be added that the whole system of bookkeeping, estimating, and costing here advocated has been also submitted to experts.

The author has endeavoured throughout to make every matter dealt with perfectly clear; but, at the same time, if he has not succeeded in doing so in every instance, or if further particulars are desired upon any matter discussed, he will be pleased to reply to any communications addressed to him, and will also be glad to receive suggestions for future editions of the work.

H. LAKIN-SMITH.

Birmingham,

February 1903.

INTRODUCTION TO THE SECOND EDITION.

THE first edition of 2,000 copies of this book having been sold, a second edition has become necessary. The whole book, therefore, has been thoroughly revised and brought up to date, and the Author's thanks are due to the Federation of Master Printers and Allied Trades of the United Kingdom of Great Britain and Ireland for having allowed him to include in the chapter upon "Costs" some of their most valuable and well-known forms, and their kindness is gratefully acknowledged. Mr. A. E. Goodwin, the Organiser and Secretary of the Federation, has rendered invaluable service in assisting the Author in various matters dealt with in this book, and his help is greatly appreciated. The Author understands that the statement in the Introduction to the First Edition, that there are probably more than 30,000 printers in the British Isles, is not correct, as the number is by no means so large. He regrets that, owing to extreme pressure in his professional work, he is not able to continue his offer to reply to any communications addressed to him if any points were not clear.

H. LAKIN-SMITH.

Birmingham,

June 1916.

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PRINTERS' ACCOUNTS.

CHAPTER I.

ESTIMATING.

PRINTING may, broadly speaking, be divided into two classes—*Letterpress* and *Lithography*. Each of these, however, as a consequence of the great development of the printing trade during the last few years, has now become subdivided into a variety of smaller branches.

The general principles of estimating are applicable to every branch of industry, and the absolute necessity in these days of keen competition of obtaining perfectly reliable estimates of costs underlies the whole question of success or non-success of any business and perhaps in an especial degree of the printing trade.

It is important that all estimates be written in a special book kept for the purpose.

The form of ruling of the Estimate Book here given is adaptable to any branch of letterpress printing. It may be that some of the items of cost enumerated are not required in an individual case; or, on the other hand, that some additional item of cost must be included. Such questions of detail may frequently arise, and adjustment must be made to meet the special requirements of a particular business. The Estimate Book should be folioed and indexed to facilitate reference.

FORM FOR ESTIMATE.

Estimate No..... Date.....

Name of Customer.....

Address .....

Description of Job .....

.....

	Rate	£ s d	Remarks
Composing			
Author's Corrections			
Stereotyping.....inches at ..			
Machine Room Costs—			
(NOTE.—Fill in particulars of Machines to be used and the rate.)			
Paper....Reams....Quires....Sheets..			
Ink at.....per Ream			
Varnishing at.....per Ream ..			
Gold or Bronze .....lbs. at			
Binding Department—			
Folding			
Stitching			
Perforating			
Binding			
Sketch or Design			
Blocks, Electros, &c.			
Punches			
Punching			
Outside Purchases, viz. :—			
Estimated Cost		£	
Price Quoted		£	

With the items on this form all printers should be familiar, but a few remarks upon the more important ones will not be out of place.

Description of Job.—

Too much care cannot be exercised in writing a full, though necessarily concise, description of the matter to be quoted for. Insufficient detail under this head has often led to the omission of an important item of cost, which has, again, been unwittingly overlooked by the person responsible for the checking of the estimate.

Composing.—

Against this item the wages of compositors and other expenses of the Composing Department and share of overhead charges are calculated at the agreed rate per hour, and this rate also includes a sufficient margin to cover alterations of proofs, pressmen pulling proofs, reader's time, "dissing" (distributing) type, and the proper proportion of foreman's wages. The method of arriving at the cost per hour for Composing is explained fully in Chapter VI upon Cost and Stock Accounts. Where there are Monotype or Linotype Machines, the Composing Room must be subdivided into two or more departments.

Stereotyping.—

Where stereotyping is not a department of the business, and such work is therefore placed with stereotypers to the trade, no difficulty will be experienced in ascertaining the cost under this head, as it is the custom for trade workers to charge at so much per square inch; but where the stereotyping is done on the premises, some difficulty may arise in ascertaining the exact cost. Therefore it is recommended that it be reckoned in this case also at the price charged by trade workers. This should result in a small departmental profit, which may be ascertained at the end of the period. (The general question of departmental profits is discussed later under "Varnishing.")

Machine Room Cost.—

The Machine Cost is arrived at by deciding upon the particular machines to be used for the job, the number of hours required, and then calculating them out at the agreed rate per hour for each machine used. These rates cover the whole of the Machine Room Cost, and the proper proportion of overhead charges, as explained in Chapter VI upon Cost and Stock Accounts.

Materials.—

To all materials (paper, ink, and other goods) at least 10 per cent. must be added to the purchase price for handling, &c.

Paper.—

This is perhaps the easiest item to estimate, although it is generally the largest. However, it is found in practice that, unless great care is exercised, errors in the calculation of the quantities not infrequently arise. The make and quality of paper should be described, and the estimated cost is entirely a matter of careful calculation.

Ink or Colour. Gold and Bronze.—

Ink should be estimated at so much per ream, according to the nature of the work, and gold and bronze at so much per pound, according to the quantity required for the job. An experienced printer will find no difficulty in formulating a basis for arriving at their cost.

Later in this treatise, under the heading of Cost and Stock Accounts (*vide* Chapter VI), mention is made of the great assistance to be derived in estimating from a frequent reference to records of previous jobs of a similar nature.

Varnishing.—

The varnishing of printed matter is, except in large printing establishments, generally not executed upon the premises, but is placed out with workers to the trade, in which case there should be no difficulty in entering up the cost under this head. Where the varnishing is done on the premises, a difference of opinion may arise as to the basis of cost to be inserted. It is not infrequently held that a departmental profit or loss should not be taken as a reason for reducing or increasing the amount to be included in the estimate for any item of cost, and this view is unquestionably the correct one, inasmuch as a department of this nature is of no utility to the business unless it shows a profit. Therefore the price to be entered in this case for varnishing (usually so much per ream, and varying according to the size of the sheet) is the one at which the work would be executed by an outside firm. The difference between the charges on this basis and the actual cost of the Varnishing Department will show the actual profit or loss of that department. In the case of a loss, it is obvious that the department does not justify its existence, unless economies can be effected to put it upon a paying basis or unless the arrangement is such a great convenience as to make its existence desirable, notwithstanding that there is a small loss.

Binding Department.—

This is chargeable at the agreed rate per hour. (*See* Chapter VI upon "Cost and Stock Accounts.")

Sketch or Design.—

This item is intended to cover the cost of Artists, or Designers in the production of the original sketch or design; and inasmuch as where a sketch or design is required it must necessarily be prepared for the customers' approval, either before or at the time of the preparation of the estimate, it is usually possible to insert the actual cost of this item in the estimate.

Engraved Blocks, Electros, &c.—

Here must be included the cost of the production where engraved on the premises, or the cost of the purchase of the original blocks, electros, &c., where not supplied by the customer.

Punches.—

This is to cover the cost of any specially shaped punch and should be inserted at the price to be paid for it.

Punching.—

Here the same remarks apply as under Varnishing.

CHAPTER II.

PURCHASES.

It is proposed to devote this chapter to a general outline of the system of ordering and recording goods purchased for use in the factory.

A definite rule must exist that no goods may be ordered except on orders written in the official Order Book, which should be a carbon book, and each order must be signed by a responsible official of the business; it must be numbered throughout serially, and the following form will be found to be generally adaptable to any printing business. Upon it should be stated particulars of the goods required and when possible the price at which the purchase is made.

3568. JOHNSON STREET,
GLASGOW.....19....

Order from
THE BLANK PRINTING Co., LTD.

To .....

When Required .....

Please Supply:—

All Goods to be Carriage Paid.
Please quote above Order No. on Invoice.

Signed .....

The goods will in due course arrive at the factory and will be received by the Storekeeper, or other person whose duties include this work. A "Goods Received Book" must be kept by him, which should be a carbon book with the following ruling :—

Date	Particulars	Weight				Quantity	Invoice No.
		T.	c.	q.	lbs.		

The book should be of reasonable depth so that, if practicable, the whole of one day's delivery of goods may be entered on one sheet, and at the end of the day the original copy will be torn out by the storekeeper and sent to the office, where in due course it will be compared with the invoices when received and afterwards filed. The carbon copy will, of course, remain with the Storekeeper.

It is an excellent plan to impress each invoice with an indiarubber stamp with a ruling somewhat as follows :—

Compared with Order by .....
Quantity or Weight passed by.....
Quality passed by.....
Price approved by .....
Department.....
Purchase Journal Fo. .....

This must be filled in by those responsible. The invoices of each firm or company should be filed in date order, and at the end of each month the particulars from each invoice should be entered in the inner column of the Purchase Journal, and the total amount of the invoices of each firm or company should be extended into the total money column.

In a small printing business it may be preferred to enter each invoice in the Purchase Journal immediately after it has been checked. This, of course, can be done, but it naturally involves additional expenditure of time, as each invoice must then be posted to the Purchase Ledger.

The easy-going methods of the old-fashioned printer, who in days gone by obtained much better prices and had but little competition to contend with, so that close examination of each item of cost appeared to him to be a mere waste of time, and who contented himself with a Purchase Day Book containing only a single money column (even if he did not post direct from the invoice to his Ledger) are dying out, and it has been proved over and over again that in these days of keen competition a satisfactory profit can be earned only by watching most carefully every item of cost and expense.

A suggested ruling for the Purchase Journal is here given containing a complete analysis of the usual items of expenditure arranged under suitable headings, so that the monthly total of each item may be readily compared with the totals of previous periods, and this analysis will also be used in connection with the Cost Accounts, which are dealt with in Chapter VI. The ruling of the Purchase Journal will naturally require adjustment to suit each individual case, and a few additional spare columns should always be provided.

PURCHASE JOURNAL.

Left side.

Date	Particulars	Invoice No.	Detail	Purchase Ledger Folio	Total Amount	Materials: Paper	Ink	Roller Clothing	Blankets, &c.	Oil, Turps, and Sundries	Wire and Thread for Binding	String and Rope	Out Work	Lino and Mono Metal	Stereo Metal
			£ s d		£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d

[Right side.

Power: Town Gas for Engines	Power: Electricity for Motors	Power: Anthracite for Gas Producer	Lighting	Carriage	Advertising					Ledger Folio	Other Ledger Accounts
s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d		£ s d

CAPITAL OUTLAY JOURNAL.

Left side.

Date	Particulars	Machinery Register No.	Invoice No.	Detail	Purchase Ledger Folio	Total Amount	Printing Machinery	Binding Machinery	Linotype Matrices	Foundry Machinery and Appliances	Gas Engine and Gas Production Plant	Shafting
				£ s d		£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d

(or REPAIRS JOURNAL).

Right side.]

Belting	Lifts and Conveyors	Composing Room Appliances	Electric Motors and Dynamos	Type, Electros, Leads, Rules, &c.	Miscellaneous	Fire Prevention Appliances	Gas and Electric Fittings					Ledger Folio	Other Ledger Accounts
£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d		£ s d

A separate book is suggested for Capital Outlay upon Plant and Machinery and the cost of its maintenance. It is of the greatest importance to know the exact cost both of new machinery and the repairs under suitable headings, and two Journals may therefore well be started, one for each of the purposes named, with a ruling upon the lines here given.

It will be understood that in the case of both the Purchase Journal and the Capital Outlay and Repairs Journals the rulings should be adjusted to suit each particular business, and the headings here given are merely suggestions.

These books should be added in monthly totals and the total of each of the analysis columns posted to the debit side of its appropriate account in the Nominal Ledger, except in the case of all items of capital outlay, which are posted to their respective accounts in the Private Ledger. The reference folio should be entered under each total.

All items of purchases in the Total column must be posted to the credit of the firms or companies from whom the goods have been purchased in the Purchase Ledger and duly folioed.

All goods returned, or any allowance off goods purchased (other than cash discounts), must be entered in a Credit Journal, which, in order to obtain a strictly accurate result, should contain analysis columns similar to those in the Purchase Journal; but, in order to save having a special book, it is not infrequently arranged that the last dozen sheets of the Purchase Journal shall be utilised for this purpose, a tab being placed in the book to show where the Credit Journal commences, and thus an additional book is saved. The items are debited to the appropriate accounts in the Purchase Ledger, and the various columns are added monthly and posted to the credit of the appropriate accounts in the Nominal Ledger. Where the return of goods is very rare, a simply ruled book, containing columns for Date, Particulars, Folio, Amount, should prove sufficient.

PURCHASE LEDGER.

The ordinary form of Ledger ruling will suffice for this book, but it is sometimes found convenient to have two money columns, and, where this is desired, the additional column can be provided. The ruling here given, however, contains one column only, as where only one item per month comes from the Purchase Journal the additional column would prove of little or no value. Loose-leaf or Card Ledgers are the most convenient, where customers are numerous.

In the Purchase Ledger a separate account must be opened for each firm or company from whom goods are bought, and should, of course, be indexed. The goods purchased, which are already entered in the Purchase Journal, or the Capital Outlay or the Repairs Journal, are posted therefrom to the credit of the Purchase Ledger, and the cash paid will be posted from the credit side of the Cash Book to the debit of the appropriate account, together with any discount that may have been allowed. Goods returned will also be posted to the debit of the appropriate account from the Credit Journal, and, of course, each item must be folioed to the book from which it has been posted.

The following is a sample ruling :—

Dr. JOHN GEORGE, LIMITED, LONDON. *Cr.*

1915			£	s	d	1915			£	s	d
Aug. 2	To Returns Cr.B.	41	2	0	0	July 31	By Goods Pur. Jl.	28	40	0	0
Aug. 10	„ Cash C.B.	305	36	2	0						
„	„ Disc't 5% „	„	1	18	0						
		£	40	0	0			£	40	0	0

CHAPTER III.

CASH BOOKS.

IN the Cash Book will be recorded all cash received, which will be entered on the debit side, and all cheques paid will be entered on the credit side. The following rules must be strictly observed :—

(1) All amounts received, whether cash or cheques, must be paid to Bank, and, if possible, daily.

(2) All payments, of whatever nature, to be entered in the Cash Book, must be made by cheque. Cash payments must only be made through the Petty Cash Book (which is described later in this chapter) and should not be for other than small amounts.

CASH BOOK.

Dr. RECEIPTS. *Cr.*

Date	Particulars	Counterfoil Receipt No.	Folio	Discount	Amounts Received	Paid to Bank
1915				£ s d	£ s d	£ s d
Aug. 25	Jones & Co.	2688	289	0 5 0	9 15 0	
"	Smithson & Co.	2689	318	0 15 0	29 5 0	
"	Harris & Co.	2690	48	1 0 0	39 0 0	
						78 0 0
31	Jenkins, W.	2691	19	0 12 0	9 8 0	
"	Lloyd, W.	2692	107	4 0 0	76 0 0	
"	Morgan, P.	2693	219	2 13 0	51 7 0	
						136 15 0
				£9 5 0		£214 15 0
				N.L. 95		P.L. 52

(3) The cash received must be entered daily in the "Amounts Received" column in the Cash Book, and whenever amounts are paid into Bank a line should be drawn under the last item entered in the "Amounts Received" column, and the total extended into the "Paid into Bank" column.

Discounts allowed will be entered in the *Dr.* "Discount" column, and the counterfoil receipt number must be entered in the column provided for the purpose.

Each item on the debit side of the Cash Book must be posted to the credit of the Sales, or other appropriate Ledger.

On the credit side of the Cash Book will be entered all payments made by cheque, including cheques drawn for Wages and for Petty Cash purposes. These will be entered in the "Cheques on Bank" column; but where for any purpose an analysis of any payment is desired, this can be entered in the "Details" column. Discounts gained will be entered in the *Cr.* "Discount" column; all vouchers for payments should be numbered serially and the number of each entered

PAYMENTS.

Date	Particulars	Voucher No.	Folio	Discount	Details	Cheques on Bank
1915				£ s d	£ s d	£ s d
Aug. 25	Tintern Paper Co. ..	889	Pur.L. 321	1 15 0	..	33 5 0
"	Printing Inks, Ltd. ..	890	Pur.L. 209	3 0 0	..	37 0 0
"	Mason & Mason, Ltd...	891	P.L. 3	5 0 0	..	95 0 6
"	Petty Cash	P.C.B.	89	..	..	9 15 0
27	Wages—					
	Artists		N.L. 3	..	2 18 0	
	Compositors		" 10	..	9 18 4	
	Machining		" 17	..	21 0 0	
	Office		" 25	..	4 0 0	
	Packing..	W.B. 49	" 30	..	1 4 1	
28	Chas. Brown, Drawings	892	P.L. 100	..	..	39 0 5
31	Thos. Gates	893	Pur.L. 103	..	..	10 0 0
						25 0 0
				£9 15 0		£249 0 11
				N.L. 95		P.L. 52

in the "Voucher No." column. All payments relating to purchases will be posted to the debit of the appropriate accounts in the Purchase Ledger, and all items of wages and other direct expenditure will be posted to the appropriate accounts in the Nominal Ledger. All items of withdrawals by partners or of a private nature should be posted direct to the Private Ledger.

It will be observed that by the system proposed, after taking account of unpresented cheques, the Cash Book should always agree with the Bank Pass Book and the real balance at the Bank will be the balance shown in the Cash Book. However, it is often desirable that the Bank figure should not be known to the cashier, and in such cases it is well for the totals of the two Bank columns to be posted weekly or monthly to the appropriate account in the Private Ledger, and the Bank balance is then shown in this Ledger. Post-dated cheques should not be entered in the Cash Book until they have matured, but may be recorded in a separate book.

All the columns in the Cash Book must be totalled and ruled off weekly or monthly, and the totals of the discount columns posted to the debit and credit of the Discounts Account in the Nominal Ledger.

It is essential that a receipt, which is usually called a voucher, shall be obtained for every item of cash paid other than wages, which are of course proved by the Wages Sheets or Wages Book, and which are discussed in a separate chapter under the heading of "Wages." These vouchers should be numbered serially and filed in order with the Cash Book, as already mentioned. Some businesses prefer to have their receipts upon their own printed form. This is, of course, convenient for filing, as the receipts are then all of the same size. Again, some have receipts printed upon their cheques, and the cheques are obtained from the Bank and filed. Both of these last two methods are convenient, but, as a check upon the honesty of the cashier or others, are inferior to the plan first suggested.

Receipts from a counterfoil or preferably a carbon receipt book should be given for all cash received, so that a copy of each receipt will be retained by the office or by the traveller. The receipts must be numbered serially and the back of the receipt must be gummed at the edge. The receipt should be in the following form :—

No..... GLASGOW.

Date.....19....

RECEIVED from.....

the sum of.....pounds.....shillings

and.....pence.

£_____ ..... 1d. Stamp. .....

It has already been mentioned that any cash paid must be paid by means of a Petty Cash Account, and be duly entered in a Petty Cash Book.

The importance of including this book in the Double-entry system cannot be over-estimated, for when it is not so incorporated, it is often kept untidily and carelessly, and may conceal inaccuracies and frauds. Another advantage of its being part of the system lies in the fact that it is more frequently scrutinised by a responsible person, with the consequence that small extravagances and inaccuracies are quickly noticed.

The Petty Cash should be kept upon the imprest system, which means that the Petty Cash will start by a cheque

being drawn for a round sum of money (say, for £5, £10, or £20, as may be found necessary), which should be ample to last the Petty Cashier for one week. The Petty Cashier will enter the amount received on the debit side of his Cash Book, and out of this he will pay various small cash disbursements of the business; and if it becomes necessary to pay any Ledger Account in cash this can be arranged through the special column provided in the Petty Cash Book, and any discount allowed should also be entered.

At the beginning of each following week the exact amount of the Petty Cashier's expenditure for the previous week should be refunded to him by a further cheque, so that at the commencement of each week he starts with precisely the same amount in hand. This results in the fact that a member of the firm or director signing the cheque knows precisely how much the Petty Cashier has spent in the previous week.

Dr. PETTY *Cr.*

RECEIPTS.			PAYMENTS.			
Date	C.B. Folio	Amount	Date	Particulars	Voucher No. or Initials	Amount Received
		£ s d				£ s d

The weekly period here suggested may be altered to a monthly period in the case of smaller businesses, where it is thought desirable.

At the end of each half-year or year the balance of Petty Cash in hand should be paid to Bank, and thus the account is cleared and no amount of cash in hand is shown on the Balance Sheet of the business; and, furthermore, the mere fact of this plan being carried out is a check upon the Petty Cashier having the correct balance of cash in hand, and avoids the somewhat uncomfortable plan of having to ask the Petty Cashier to produce his Petty Cash for a responsible official of the business to count, in order to see if it is correct.

The Payments side of the Petty Cash Book consists of a Total column and a series of Analysis columns, into which are extended under appropriate headings the various items of Petty Cash expenditure.

CASH BOOK.

ANALYSIS OF EXPENDITURE										
Stamps and Telegrams	Carriage	Stationery	Packing Material	Travelling	Gratuities	Stores	Sundries	Ledger Accounts		
								Cash	Discount	Fol.
£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	

The book must be ruled off monthly and the totals of the various Analysis columns posted to appropriate accounts in the Nominal Ledger.

As has already been mentioned, there are columns provided headed "Ledger Accounts," and these are necessarily posted in detail to the Purchase or other Ledger, and therefore the total of the Cash column under the heading of Ledger Accounts will not be required to be posted, but the total of the Discount column, which is only included in the Petty Cash Book for convenience, must be posted to the credit of the Discount Account in the Nominal Ledger.

It will be noticed that in the Petty Cash Book a column is provided for "Voucher No. or Initials." In the case of small items of Petty Cash a voucher cannot always be reasonably obtained, and then the payee may well initial the particular item in the Petty Cash Book. Sometimes it is found convenient to have a special form of voucher for Petty Cash Items, which should preferably be used only when the payee cannot supply a form. The Petty Cash Voucher, if required, may be in the following form, and it should be added that all Petty Cash expenditure should be authorised by some responsible person. All Petty Cash Vouchers are, of course, numbered and filed in the order of the Petty Cash Book.

No.....

PETTY CASH VOUCHER. Date.....191..

For what required	Amount
	£ s d

Signature.....

Folio..... Passed by.....

CHAPTER IV.

WAGES.

IN connection with the system of wages it is important to have for the timekeeper a reliable man, who will, without fear or favour, record in the Time Book the number of hours worked by each employee, whether he or she is a piece-worker or day-worker.

The advisability of including piece-workers in this record is easily shown (notwithstanding the argument—which, at first sight, appears to be plausible—that, inasmuch as the amount payable to a piece-worker is not calculable upon the time he is in the works, but upon the actual work done, it is unnecessary), for it is obvious that, for a business to be entirely successful, the whole of its machinery must be worked to its full capacity, so that the maximum of output may be obtained, and if piece-workers are not working full time this is not the case. This system brings regularly to the notice of the management a complete record of the time worked by each person employed in the works, and thus any laxity should be quickly noticed.

There are several ingenious "Time Machines" for recording the time of arrival and departure of each workman, and these may advisedly be used; but, in the absence of any of these devices, the following plan will be found to work excellently.

The Time Book (a ruling for which is here given) contains a complete list of all employees, and opposite each name is written a number by which the person is distinguished. On a wall near to the timekeeper's office is affixed a board,

on which are hung metal checks or discs, one for each employee and bearing his number. As each man enters the premises he takes his check down from the board, and forthwith drops it into a box placed in front of the timekeeper's office, so that that individual can observe all that is taking place.

Immediately the clock chimes the hour, the entrance to the factory is closed and the timekeeper forthwith removes the "checks" from the box, and records them in the Time Book as the "Punctual" arrivals. A few moments later the entrance is again opened, and late comers pass in and place their checks in the "late box," which in turn are entered up in the Time Book as so many minutes late, according to the rules of the factory. Still later arrivals are dealt with in a similar manner.

In the Time Book it will be observed that "dots" denote "no lost time," whereas a figure or fraction denotes the number of hours lost. The time lost by each employee is added at the end of the week and deducted from the standard number of working hours, and thus the net hours worked by each employee (irrespective of overtime, which is certified on separate sheets) are obtained and carried on to the Wages Sheet or Wages Book, as the case may be. Wages are more usually paid on Friday evening in each week, and in some factories two or more days' wages are kept in hand by the employers, in which case the order of the days in the Time Book must be appropriately adjusted.

TIME BOOK. Week ending.....1 . .

No.	Name	Saturday	Monday		Tuesday		Wednesday		Thursday		Friday		Total Hrs. Lost	Hours Worked	Remarks
		M	M.	A.	M.	A.	M.	A.	M.	A.	M.	A.			
1	Adams	:	:	:	:	:	:	:	:	:	:	:	½	51½	
2	Stephens	¼	:	:	¼	:	¼	:	:	:	:	:	1	51¼	
3	Jones	:	:	:	:	:	:	:	:	:	:	:	:	52	
4	Jones II.	:	:	:	:	:	:	:	:	:	:	:	:	52	
5	Smith	:	:	¼	:	:	½	:	:	:	:	:	¾	51¼	
6	Williams	:	:	:	:	:	¾	:	:	:	:	:	7	45	
7	Brown	¼	:	:	¼	:	:	¼	:	:	:	:	10¼	52	
8	Robinson	:	:	:	:	:	5	:	:	:	:	:	:	41¾	
9	Nicholls	½	:	:	¼	:	:	:	:	:	:	:	:	52	
10	Blakemore	:	:	:	:	:	:	:	:	:	:	:	:	52	
&c.															

It is convenient, for the preparation of the weekly Wages Sheets, to allot to piece-workers a different series of numbers ; for instance, if there be 200 people employed in the works, of which 100 are piece-workers and 100 day-workers, it would be arranged that the numbers, say, from 1 to 100 should be allotted to day-workers, and 101-200 to piece-workers.

The following form of Wages Sheet is to a great extent self-explanatory, and few remarks are therefore necessary with reference to it.

In the example given it is assumed that the standard number of working hours is 52 per week, and that overtime rate is paid only when this number of hours is exceeded.

A column has been provided for the total wages earned in each department. These totals, which, of course, make up the total wages paid each week, are entered in the Cash Book and posted to their appropriate accounts in the Nominal Ledger. As regards the method of arriving at the amounts payable to piece-workers, each person employed in the factory must record upon a Daily Time Sheet particulars of the work done. This is referred to in detail in Chapter VI upon "Cost and Stock Accounts."

WAGES SHEET.

No.	Name	Hours as per Time Book	Overtime	Total Hours Worked	52 Hours			Overtime			Total			Nat. Ins. Workers' Contribution			Actual Wages Paid			Nat. Ins. Employers' Contribution			Department Total		
					Rate per Week	Value		Rate per Hour	Value		£	s	d	£	s	d	£	s	d	£	s	d	£	s	d
	ARTISTS—																								
1	B. Jones	51½	2½	54	42/-																				
2	D. Cox	51	..	51	42/-																				
	Etc.																								
	COMPOSITORS—																								
5	Smith	51½	3½	55	35/-																				
6	Williams	45	..	45	32/-																				
	Etc.																								
	MACHINING—																								
9	Cawt n	52	..	52	38/-																				
10	Baxter	52	1¼	53¼	38/-																				
	Etc.																								

CHAPTER V.

SALES.

THE books relating to the Purchases of Materials, Wages, Expenses, and Capital Outlay, having now been considered, it is important to turn to the other side of the business, viz. the selling of the goods manufactured, and to follow these, from the original receipt of the orders, through the Sales Journal and the other books of account.

Each order received is written on the face of a large envelope specially ruled for the purpose, and inside the envelope are placed all papers, samples, &c., relating to the job. This envelope goes through each department, where work upon the order is required, with the job, and returns to the office on completion. The appropriate portions are filled in by each department as the work of the department is completed. The envelope should be ruled in the form most suitable to each particular business. A useful ruling is as follows :—

ORDER.

Order No. ..... Date .....

Name of Customer ..... Day Book Folio.....

Address ..... Estimate No.....

..... Customer's Order No.....

Full Description .....

.....

.....

No. of Copies.....Size.....Date Required.....

Deliver to.....Date Completed .....

.....

To pay on Delivery.....

Date on which received by Departments				Deliveries		
Composing	Machine	Binding	Paper	Delivery Note No.	Date	Quantity

When the work is completed the Office instructs the Forwarding Department as to the precise quantity to be delivered to the customer, as it not infrequently happens that the customer does not require the whole of the goods to be delivered to him in one lot; for it is well known that in the printing trade large quantities are often ordered for the purpose of effecting a saving in price, even though the deliveries are spread over several months.

When the goods have been despatched the warehouseman will enter particulars in a duplicate Delivery Book, which needs no special ruling, but should be numbered throughout. It is well for each delivery to be entered upon a separate page. Each duplicate sheet, so soon as it is complete, must be sent to the office.

Where the goods are to be delivered in the town in which the business is situated, the warehouseman will enter the goods in the carter's Delivery Book for signature by the customer or his representative; and where the goods are to be despatched by rail, he will enter the parcels in the Railway Book, for signature by the railway lorryman.

THE SALES JOURNAL OR DAY BOOK

is a book of account, in which are recorded, in date order, all sales effected.

Some businesses now prefer to show the actual detailed cost of each order (obtained from the Job Cost Sheet, *see* Chapter VI) in the Sales Journal, and the actual profit or loss upon the job. The ruling here drawn gives effect to this, but, where it is preferred, the Costs and Profit or Loss columns may be in a separate and private book.

The following ruling will be found convenient. The headings of the Analysis columns will, of course, be varied to meet special requirements.

Left side.

Composing	Stereo	Warehouse	Machine	Binding	Paper	Ink	Total Cost	Profit	Loss
£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d

[Right side.

Order No.	Date	Name of Customer	Description of Goods	Delivery Book No.	Sales Ledger Fo.	Details	Total	Letter-press	Lithography	Block Colour Printing	
						£ s d	£ s d	£ s d	£ s d	£ s d	£ s d

The sales are posted to the debit of the appropriate accounts in the Sales Ledger, and the totals of the columns relating to the various classes of sales to the credit of their appropriate account in the Nominal Ledger.

The Sales Ledger Ruling is as follows :--

Dr. JENKINS & CO., LTD. *Cr.*

1915		Fo.	£ s d	1915		Fo.	£ s d
July 1	To Balance brought forward ..		20 9 6	July 10	By Cash		19 19 4
					„ Discount ..		0 10 2
20	„ Goods		41 8 6	30	„ Cash		40 7 10
					„ Discount ..		1 0 8
			£61 18 0				£61 18 0

It is often a good plan to enter in place of the word " Goods " a short description of the actual goods supplied.

CHAPTER VI.

COST ACCOUNTS.

WHEN a printer gives a quotation for an article, or for the execution of an order, the principal guide he has to the probable cost is his knowledge (gained by experience) of the various items constituting such cost ; but there are constant pitfalls for the most careful, and without a system of " costing " there is always the danger of unsatisfactory Trading Accounts, at half-yearly or yearly stocktakings, which cannot be readily explained. The system recommended is one involving a certain amount of additional labour, but this is overwhelmingly compensated by the knowledge gained of the real cost of each job undertaken and the progress of the business month by month.

Before fully discussing the system it is important to realise precisely what information the Cost Accounts should supply.

It will be recalled that in Chapter I the detailed estimate of costs was considered, and it is for the proving of the accuracy of those estimates which have resulted in orders, and for ascertaining the costs of those for which no estimates have been given, and on the costs of which their selling prices will be therefore based, that Cost Accounts are mainly needed. It is also of importance to see that a repeat order has been executed at the same margin of profit as was obtained in the original order.

Since the first edition of 2,000 copies of this book was published, the whole question of Printers' Costs has been

exhaustively inquired into by the "Federation of Master Printers of Great Britain and Ireland" with most excellent results, which have been published by them in pamphlet form during the past few years. Further, the continuous experience of the Author in "Costs," both in the printing and many other trades, and the knowledge of new and up-to-date methods, have resulted in the method of "Costing" now advocated in this chapter being brought up to date. It is, therefore, materially different from the system advocated thirteen years ago.

It is at this point desirable to point out that in a book dealing with the whole subject of "Printers' Accounts" it is not possible to devote more than a reasonable space to the subject of "Costs," but those who desire to study the subject more fully are advised to purchase "Explanation and Specimen Forms of the Printer's Cost-Finding System," published by the "Federation of Master Printers of the United Kingdom of Great Britain and Ireland." Some of these forms, by permission, appear in this book, and their kind permission to publish them is gratefully acknowledged. An enormous boon was conferred upon the trade by the Costing Committee of the Federation when, over a period of more than twelve months, they exhaustively considered the whole question of "Cost Finding," and the opinions of that Committee are of the greatest value, and much reform has consequently resulted in printing houses.

In order to arrive at the real cost of all the articles manufactured, it is necessary to divide the business into departments, which must be suitable to the particular business.

Three departments at the least will always be required :—

Composing Department (hand composing must be kept separate from Linotypes and Monotypes),

Machine Department,

Materials Department,

and usually also a Binding Department. Other departments are often required, such as Varnishing Department, Stereo and Electro Department, &c., and, in lithographic and printing businesses, departments such as Artists, Transferring, &c.

The various items of cost must now be traced from their respective sources, and in this connection it is important first of all to deal with the various items of wages costs.

Every employee—e.g. designer, artist, compositor, or machine-minder—must be supplied with a daily Time Sheet, on which he must enter particulars of each job he has been employed upon during the day, and the actual time he has devoted to it.

A suitable form for a machine-minder is given below, and this can easily be adapted to the requirements of the other classes of workmen employed. Different coloured sheets may well be used for each department. The following is the form of Time Sheet agreed to at a conference of the Masters' Federation and the Trade Unions.

LETTERPRESS MACHINES—DAILY DOCKET.

Minder's Name..... *No*..... *Date*.....19.....

Job No.	Customer's Name and Description of Job	Machine No.	No. of Runs	Class of Work.	Hours		For Office use only	
					Ordinary	Overtime	Chargeable Hours	Non-Chargeable Hours
				Total Hours				

Examined by.....

CLASSES OF WORK.

9. Making Ready.
10. Running on.
11. Washing up for Colour.
12. General Wash-up and Oiling Machine.
13. Waiting for (insert passing of proof, paper, corrections, &c., as the case may be).

This form of Time Sheet is self-explanatory. The foreman in charge of the particular department must pay special attention to see that these forms are regularly and accurately filled up by the workmen. They should be examined daily by the foreman of the particular department, in order that his criticism may be really effectual.

Materials Costs must now be considered.

The method of recording materials used on the respective jobs is a much simpler matter than that of wages. A Stock Ledger Account or a Stock Card should be kept for each kind of material. When an invoice for material arrives in the office it should be compared with the entry in the "Goods Received Book," of the actual goods received, and then the quantities and prices enumerated thereon should be debited to the appropriate accounts in the Stock Ledger or on the Stock Cards, which contain an account for each class of material used.

The ruling of this book, or the cards, is not complicated. On the debit side will be found columns for the Invoice No., Date, Name and Description of the Goods, Weight or Quantity, and Price. The following are sample rulings of the accounts in the Stock Ledger and of Stock Cards.

INK STOCK ACCOUNT.

Purchases.					Charged on to Orders.					
No. of Invoice	Date	Name and Particulars of Goods	C. Q. Lbs	Price	Order No.	Date	Name	C. Q. Lbs		Remarks

PAPER STOCK ACCOUNT.

Purchases.						Charged on to Orders.					
No. of Invoice	Date	Name and Particulars of Goods	Rm.	Qr. Sh.	Price Per Ream	Order No.	Date	Name	Rm.	Qr. Sh.	Remarks

STOCK CARD.

No.....

ARTICLE.....

MAXIMUM STOCK.....

MINIMUM STOCK.....

Date	Ordered							Received				Delivered				Balance		
	Purchase Order No.	From	Weight or Quantity	Terms	Discount	Price		Goods Received Sheet No.	Quantity	Price	Amount £ s d	Requisition Sheet No.	Quantity	Price	Amount £ s d	Quantity	Price	Amount £ s d

PRINTERS' ACCOUNTS. 39

The rulings for the Ledger just given are sufficient, but more detail may well be added, and the more complete ruling for a Stock Card (or Ledger) is therefore given and may be adjusted to suit the particular wishes of those desiring to use it. Each card should be printed upside down on the back, so that it may be referred to without removal from the file.

It must be understood that each sort of ink or paper, or any other kind of material used, requires a separate Stock Account, but the sample rulings already given will be sufficient to illustrate the general method of recording stocks.

The store-keeper gives out material only on receipt of a signed requisition, which is afterwards posted to the credit side of the appropriate Stock Account, and this must also be entered upon the Job Cost Sheet, which is referred to later in this chapter. The balances of the Stock Accounts should always represent the actual stock in hand of the various materials. The stock of raw materials—such as paper, ink, &c.—should be taken at frequent intervals for the purpose of proving the accuracy of these balances, and of the charging out of material on to orders.

The actual cost in productive wages and the actual cost of the materials have now been dealt with.

It is now important to deal with the question of the whole of the other expenses of the business, including unproductive wages, and the general dead-weight charges of the business. The old way of estimating for these was to add an agreed percentage to the total cost of productive labour and material. Later, it was realised that the real cost of a job varied much more with the amount of labour than material, as many a job costing a great deal in material but little in labour really incurred very small "dead-weight" indeed. Later still, it was realised, with the introduction of expensive modern machinery, resulting in the machine cost of each job increasing and the cost in actual labour decreasing, that a new basis of

cost must be arrived at, to include machinery and labour, of a " Machine Cost " per hour.

It also became the wise practice among printers who desired accurate costing to apportion carefully to each department all expenses specially belonging to that department, and a proportion of all the other " overhead " charges not directly attributable to any particular department; with the result that in all modern costing systems, both in the Composing, Machine, Binding, and all other departments, the rates per hour charged include not only wages, but also all other expenses incurred by or appropriately apportioned to the department.

Materials should be charged at actual cost plus a percentage to cover storage, handling, cost of selling, discounts, carriage, bad debts, &c., and this will usually be found to be from 10 to 20 per cent.

One important question which must arise in arriving at the cost of the different processes is the method of treating " idle " time in so far as this is due to want of orders or some avoidable cause. Of course, no printing works can continuously work every machine full time (quite apart from " making ready," which would be charged to the job). This applies particularly to binding machines, which are seldom fully employed. But idle time often occurs from quite other causes, and these will now be considered.

The Federation Costing Committee recommend that hourly rates should be arrived at on the basis of the normal output of the works and not upon the maximum output of the machines, which, owing to the very character of the business, can rarely be obtained.

But if a factory is, for want of orders, running on short time, it may appear at first sight that the cost of all the actual jobs in the factory is increased because it is considered that they should bear the whole of the expenses of the business.

Further consideration will show that this is a false argument, for the actual jobs are not costing more, but it is the want of additional jobs which leaves a heavy load of unapportionable expenses.

To take an absurd case, a factory can turn out sales of £500 per week, but owing to want of work is only turning out £100 per week. Now, if the " idle " time is to be loaded on to the cost of this hundred pounds' worth of jobs, the business will show a heavy loss, with an incentive to the owners to increase their prices and thus, perhaps, further reduce their sales, when the cost of the balance remaining must again be still further increased, and the business go from bad to worse.

Now it may be that what was wrong with this business was that they were selling at slightly higher prices than their competitors, and that consequently a small reduction in their prices would result in the whole factory being again full of orders and a profit earned; or it may be because inefficient travellers are employed to sell the goods, or that owing to bad foremen, or out-of-date machinery, the factory is not turning out the work in proper time and therefore as cheaply as it should. It is most essential that " idle " time be treated scientifically and carefully watched, not only in the printing trade, but in the costing systems of all other businesses.

If the hourly rates are fixed on the basis of the number of hours chargeable to jobs which might reasonably be expected from the various departments, and it is found that the actual number of hours does not reach this standard, the hourly rate should not be increased until a full investigation has been made as to whether the " idle " time paid for is excessive.

If there is a deficit shown in any department for a number of weeks in the weekly statement (Form 3, page 45), the first thing to do is to examine the " idle " time in that particular section of the business, and a careful record should be kept of all such " Idle Time."

It will, of course, be appreciated that all costs must be periodically checked so as to ensure accuracy.

As has been already stated, the cost per hour in each department must cover not only productive and unproductive wages and the whole of the expenses of the particular department, but also the proportion for that department of the general "Deadweight" or "Overhead" expenses of the business. Rents, rates and taxes, lighting, heating, and water are apportioned over the various departments usually in proportion to the floor space occupied by each, or in any other way which, in particular cases, may seem to be the most equitable.

It is essential to arrive very accurately and carefully at the rates to be charged for each machine and each class of hand labour.

It is first necessary to prepare a statement showing all the expenses of the business for the previous year (unless such previous year was an abnormal one, when suitable adjustments must be made), and this statement must include interest on capital, and, in the case of a private business, salaries of partners, or the real cost will not be obtained. Expenses which cannot be allocated to departments are entered in a column headed "Overhead Expenses."

The form of the statement must obviously vary according to the different departments existing in the particular business under review. An admirable form of this statement is given by the Federation of Master Printers, and this is reproduced here with the kind permission of the Costing Committee of the Federation, together with their forms for the method of recovering Overhead Expenses and the Statement of Cost of Production. It will be noted that the forms are drawn with a simple ruling; but for all other departments there must, of course, be provided additional columns. Under "Binding" is usually included Cutting, Folding, Stitching, Perforating, and other sundry items appropriately dealt with under this head.

Form No. 1.

STATEMENT OF EXPENSES

Showing Standing Departmental Expenses per Annum and per Week.

The following figures are hypothetical but approximately correct for the class of business shown.
The business dealt with in this example spends £1,050 per annum in Wages. 750
" " in Materials. 775
" " in Expenses. —
Capital invested, £2,000 1,525
Total Sales .. £3,000

1		2	3	4	5	6	7
		Direct Departmental Expenses					
	Assessment of Total Expenses based on previous Year or Years	Composing Room	Machine Room	Binders	Paper or Materials Stock Room	Total Direct Departmental Expenses	Overhead Expenses not Directly Chargeable to Depts.
£		£	£	£	£	£	£
130	Rent, Rates and Taxes, Light, Heat and Water (divided according to floor space)	60	40	20	10	130	—
20	Power (divided according to amount used)	—	16	4	—	20	—
120	Depreciation at 10% (on value of plant in each department)	60	45	15	—	120	—
10	Fire Insurance (according to floor space and contents)	4	3	1	2	10	—
2·10	Workmen's Compensation	1	1	·10	—	2·10	—
20	Repairs and Renewals to Plant and Machinery	6	12	2	—	20	—
10·10	Direct Departmental Sundries	2	4 10	4	—	10·10	—
100	Interest at 5% on £2,000	30	22·10	7·10	15	75	25
362	All other General Expenses (*e.g.* salary for Proprietor, travellers' commissions, office expenses, stationery, postages, discounts, bad debts, spoilage and general trade expenses, &c. &c.)	—	—	—	—	—	362
775	Yearly Assessment of Standing Departmental Expenses	163	144	54	27	388	387
	Weekly Assessment of Standing Departmental Expenses, which appears in Weekly Statement of Cost of Production	£3 2 9	£2 15 6	£1 0 9	—	775	
	Deduct £75 chargeable to Materials (see note below) ..					27	48
						£361	£339

EXPENSES CHARGEABLE TO MATERIALS.

The suggestion of the Costing Committee is that each Printer should ascertain for himself the amount chargeable to Materials for Storing, Handling, Commission, Carriage, Bad Debts, &c., but that a *minimum* of not less than 10% on the value of Materials used should be charged. In this business the printer did not allocate overhead expenses to materials, but considered 10% was sufficient to add to materials. 10 per cent. on £750 Materials = £75, of which £27 is shown to be the actual handling expense (see Col. 5) and deducted from Direct Departmental Expenses (Col. 6), the balance required of £48 is deducted from Overhead Expenses (Col. 7). (In a larger business the paper warehouseman's or a share of porter's wages would be placed in the materials column as a separate amount.)

For method of dealing with the above figures see Forms 2 and 3. This Form should be made out once each year.

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Form No. 2.

METHOD OF RECOVERING OVERHEAD EXPENSES.

METHOD OF ASCERTAINING PERCENTAGE ON DIRECT DEPARTMENTAL EXPENSES PLUS WAGES TO RECOVER OVERHEAD EXPENSES.

The Printer having *ascertained* his Direct Departmental Expenses as explained by Form 1, should then *recover* his Total Overhead Expenses (*i.e.* £387), (*a*) by a percentage on Materials, (*b*) and by a percentage on Direct Departmental Expenses plus Wages actually paid, as follows:—

	£	£
Total Wages estimated on last year (or by taking the average of the last three years)		1,050
Add Direct Departmental Expenses (Form 1, Col. 6)		361
Direct Departmental Cost		1,411
Add Overhead Expenses (recovered on Departmental Expenses plus Wages (Form 1, Col. 7))		339
amounting to £339 = 24% on £1,411		(*) 1,750
Materials	£750	
Add 10% thereon	75	
		825
Total Estimated Expenditure for the Year		£2,575

(*) Rates for each chargeable hour (*i.e.* actual hours spent on jobs) must be ascertained to recover this amount. Some hourly rates are in use in every office. These should be continued (or new rates fixed as explained) until they are shown to be incorrect by Statement of Cost of Production, Form 3, and Departmental Analysis, 4.

This Form should be made out once each year.

Form No. 3.

STATEMENT OF COST OF PRODUCTION

For Week ending November 22nd 1912.

Chargeable Materials (*i.e.* Ink, Paper, &c.) are omitted.

	Composing	Machine	Binders
	£ s d	£ s d	£ s d
Wages actually paid (and Insurance Act—Employers Contributions)	10 5 0	7 6 0	2 13 0
Add Departmental Expenses.. .. .. .. (as assessed, see Form 1)	3 2 9	2 15 6	1 0 9
Direct Departmental Cost .. .. (without Overhead Expenses)	13 7 9	10 1 6	3 13 9
Add Proportion of Overhead Expenses .. .. (*i.e.* 24% on Direct Departmental Cost. See Form 2)	3 4 3	2 8 4	0 17 8
Total Departmental Cost for the week	16 12 0	12 9 10	4 11 5
Value of Production in each Department.. .. (at hourly or piece unit rates or at a percentage on wages obtained from Value of Production Statement)	13 13 0	12 1 6	4 18 6
Deficit	2 19 0	0 8 4	
Surplus			0 7 1

The "Value of Production" referred to in Form 3 is a form upon which the chargeable hours of each department are recorded and calculated.

In the Machine Room, in order to arrive at the actual hourly rate for each machine, the following plan must be adopted.

Firstly, summarise the Time Sheets for a period of, say, one month; find the average weekly chargeable hours worked on each machine.

Secondly, allocate to each machine the wages actually paid and divide this by the average chargeable hours ascertained as above, and this will give the average wages cost per chargeable hour. All minders' and feeders' wages must be included in this allocation.

Thirdly, make a schedule of all the machines, placing against each a figure denoting its value or cost in units of, say, £25 or £50. These units must each be multiplied by the respective number of chargeable hours worked by the particular machine; and the total weekly departmental cost, including overhead expenses, less wages already taken into account, must be apportioned at a rate per chargeable hour to each machine. Then to each of these hourly amounts for wages must be added the unit hour cost, giving the rate, which must be charged for all work done by the particular machine.

MACHINE UNITS (METHOD OF FINDING HOURLY RATES).

Machine No.	Average Chargeable Hours Worked During Week.	Average Wages per Week.	Wages per Chargeable Hour.	Cost.	Equivalent in Units of £50.	Units * Chargeable Hours.	Total Departmental Cost (less Wages).	Unit Hour Cost.	Wages per Chargeable Hour.	Machine Rate per Chargeable Hour.
		£ s d	s d	£			£ s d	s d	s d	s d
4	40	3 0 0	1 6	200	4	160	2 14 2	1 4¼	1 6	2 10¼
5	33⅓	2 1 8	1 3	150	3	100	1 13 9	1 0¾	1 3	2 3¾
6	50	2 10 0	1 0	100	2	100	1 13 9	0 8	1 0	1 8
						360	£6 1 8			

Other departments must be dealt with on similar lines to the above, and as has already been stated, in the Composing Room a distinction must be made between Linotype, Mono, and handsetting, and similarly in other departments between machine and hand labour.

Job Cost Sheet.—

In order to obtain the actual cost of each job the various items of cost must be transferred to the Job Cost Sheet, on which the cost in each department appears in a separate section, together with the value of all material used.

With the kind permission of the Federation of Master Printers the form of Job Cost Sheet recommended by them, together with sample entries, is here given, and it will be borne in mind that an amount for profit must be added.

The Job Cost Sheet will require to be varied to suit the particular requirements of each business.

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Form No. 10.

JOB COST SHEET.

Customer's Name—Green & Co. *Job No.* 415.

Description—10,000 Balance Sheets.

Composing Costs

Date	Hours Comp.	Hours Author's Corr.	£ s d
10/11/12	10		
11 "		2	
13 "		1	
14 "		1	
	10	4	
	4		
	14	at 1/6	1 1 0

(Hours reckoned at 1/6. This rate is shown incorrect by Form No. 4.)

Binding Costs

Date	Hours @ 6d.	@ 9d.	@ 1/-	@ 1/6	Date	Piece Wages Paid £ s d
16/11/12	3		1	½	16/11/12	0 2 0
17 "	3		½	½	17 "	0 2 6
	1					0 2 0
	7		1½	1		0 6 6
					100 %	0 6 6
					7 @ 6d.	0 3 6
					1½ @ 1/-	0 1 6
					1 @ 1/6	0 1 6
						0 19 6

Machine-room Costs

Date	Mach. No.	Hours	£ s d
15/11/12	3	1	
16 "	"	12	
		13	1 6 0
(Machine rated at	No. 1 is 2/- hr.)		
Ink			0 1 4
		15%	0 0 2
			1 7 6

Paper or Materials

Date	Particulars	@	£ s d
15/11/12	10 rms. 12 qrs. C L L. Post	4/-	2 2 6
	15%		0 6 4
			2 8 10

(Form continued on next page.)

Outdoor Costs						Summary	£ s d
Date	Order No.	Goods	@	£ s d			
14/11/12	2593	10,000 Envelopes	6/-	3 0 0		Composing	1 1 0
						Machine	1 7 6
						Binding	0 19 6
						Paper or Materials	2 8 10
						Outdoor Costs	3 6 0
						Total Cost	9 2 10
		10%		0 6 0		Add for net profit % ..	1 18 2
						(As Estimate) Total Charge ..	11 1 0
				3 6 0			

In this particular business, the hourly rates in the binding room were:—Women, 6d.; men, 1/-, and men on cutting machines, 1/6 per hour. The number of columns and rates must be adjusted to each business.

This form should be kept in the office in some form of loose leaf binder, and the costs entered on it daily from the Daily Dockets. When the job is finished, this sheet should be attached to and filed away with the Work Ticket. For very large jobs extra sheets suitably printed for each department can be added behind this form, on which the costs are collected.

The following notes should prove helpful in particular cases :—

Sketch or Design.—

The number of hours spent and the rate of wages will be entered upon the Job Cost Sheets, and, where outside artists are employed, the actual amount charged for the work must be entered, and this will, of course, be obtained from the invoice received.

Engraved Blocks, Electros, &c.—

Where these have not been supplied by the customer there will be a cost to insert under this head, which is ascertainable from the invoice, assuming the blocks are not manufactured upon the premises, to which should be added also percentage to cover cost of ordering and selling, about 10 per cent. usually. Where the engraved blocks are made upon the premises, the actual cost of the blocks will have been arrived at.

Stereotyping.—

The Stereotyping Department will record the number of inches involved in the work, and this is the basis for the calculation of the cost, which usually varies from one half-penny per inch upwards. Where this work is executed by stereotypers to the trade the cost must, of course, be obtained from the invoice.

Paper.—

The quantity and price have already been entered, the money value of which must be extended, and the agreed percentage added for handling, storing, and selling.

Ink.—

The quantity of ink is arrived at by either one of two methods. It is more often estimated at so much per ream, according to the size of the paper printed upon, a regular scale for which has been fixed, and which has been based upon experience, and is therefore for all practical purposes sufficiently reliable. This somewhat rough and ready method is usually adopted as a means of saving time, and because it is frequently impossible to ascertain the precise quantity used. However, in the case of large orders, there is no doubt the actual quantity used can and should be obtained.

In the former case it is a matter of mathematical calculation, and in the latter the machine-minder will have entered the actual quantity upon his Time Sheet; the price of the ink is obtained from the Stock Account, which will supply the necessary data for the money calculations of the cost under this head.

Bronzing Machine Work.—

This is really part of "Machining," and the number of hours and the rate per hour are dealt with under the head of Machine Cost. It is desirable, however, to keep this item separate.

Varnishing.—

As previously stated, a fixed rate is adopted for this work, calculated upon the size of the sheet, if performed upon the premises; and this is also the case where varnishing is done by workers to the trade, the rate being obtained by reference to the invoice.

Punches.—

A cost under this head only arises when the punch required is not of a general shape, and therefore has to be procured specially and can be used only for a particular job; but when this does occur, the invoice of the manufacturer of the punch will give the required information.

Punching.—

This, being generally performed by piece-workers, is charged out at a fixed rate per thousand, i.e. the piece-rate paid plus a percentage to cover departmental and general expenses, usually about 100 per cent.

Mounting.—

This cost is obtained by precisely the same method as "Varnishing," plus the cost of materials.

Making Up.—

This is often performed by piece-workers, and is charged out at a rate per thousand, similarly to punching.

Folding.—

This is also often performed by piece-workers, and is charged out at a rate per thousand, but where workers are paid by time, hourly rates to include all costs, including machine, if one is used, should be fixed.

Cutting.—

The mode of arriving at the cost of cutting must necessarily vary according to the class of work; in many printing

establishments a fixed percentage on the total of the other costs is charged, but this can only be where all the work is practically of the same class.

A better and safer plan would be to draw up a scale of charges according to the size of the sheets and the number into which they are to be cut. For instance, let it be assumed that the size of the sheet worked is "crown," and that the number of impressions worked thereon is eight, then a price per ream should be fixed for crown octavo. However, whatever may be the basis for computing the cost of cutting (and experience of the particular business in hand will be the safest guide for the formulation of the basis), the great aim must be to adopt the most reliable method possible under the circumstances of the business. In some businesses it is not difficult to get time sheets and to fix correct hourly rates.

Stitching.—

This work is often performed by piece-workers, and must be charged out at a rate per thousand to cover cost of machine and rate paid to worker.

Binding.—

The cost of binding must be obtained from the invoice of the firm which has done the work; or, where it has been carried through by a special department of the business itself, the cost will appear upon the "Job Cost Sheet."

It will be remembered that the details of the summary of the cost of each job are entered from the Job Cost Sheets in the columns provided in the Sales Journal (see Chapter V on Sales) or in a special book provided for the purpose.

Each item of cost has a different column, and columns are provided showing the actual Profit or Loss upon each particular job.

The total amount, therefore, of each column, relating to one item of cost, e.g. "Composing," is comparable at the end of

each period, or year, with the total of the actual costs incurred in that department (including "overhead" charges), and if any considerable difference is shown, the rates per hour must be adjusted.

The actual profit earned, as shown by the total of the "Profit" column after deducting the total of the "Losses" column, should give the actual net profit for the year, subject to adjustment by the total amount of the differences of the totals of the various "Cost" columns, when compared with the actual total costs of those departments for the period under review.

It will be found by experience that very soon the science of "Costing" becomes very accurate, and thus the profits or losses shown upon the completion of each job may be relied upon.

Thus the wise printer knows throughout the financial year precisely how his trade is being carried on; whereas the ignorant printer, who will not go to the trouble and small additional expense of a proper costing system, is frequently startled to find, when his annual accounts are prepared, that he does not pay his way, and that he has been, unwittingly, losing money throughout the period.

For a small business it may be thought that this method of analysing sales will involve too much clerical work. An alternative plan is simply to enter the total Cost and Charge from the job cost sheets and to take the total of the profit (less any losses) shown on the jobs charged out each week, and to deduct or add the balance, according to whether there is a net surplus or deficit on the weekly cost and value of production statement. These figures, when totalled for the year, will be found to approximate very closely with the result shown by the trading account for the year.

For convenience, the form of the Sales Journal is again given here, and the number of "Cost" columns will, of course, be extended to cover every department of the business.

Composing	Stereo	Warehouse	Machinery	Binding	Paper	Ink	Total Cost	Profit	Loss	Order No.
£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	

Date	Nam of Customer	Description of Goods	Sales Ledger Folio	Details	Total	Letterpress	Lithography	Stationery	&c.
				£ s d	£ s d	£ s d	£ s d	£ s d	£ s d

CHAPTER VII.

THE JOURNAL, NOMINAL LEDGER, PRIVATE LEDGER, WORKING ACCOUNT, AND BALANCE SHEET.

THE Journal and the private books and accounts of the business will now be considered.

The Journal.—

The Journal is a book, the use of which has been considerably reduced by the conversion of Sales Books and Purchase Books into Sales Journals and Purchase Journals, and by the necessity of saving all unnecessary entries, which has resulted in many "totals" from the subsidiary books and other entries now being posted direct to the Nominal or Private Ledgers, without being transferred through the Journal.

The book still, however, has its uses and may well be subdivided into a "Private Journal" and a "Transfer Journal." In the former may be recorded certain important private transactions, such as the opening entries on the formation of a new firm or company and other items of a special nature.

The Transfer Journal is used for transfers, which might be lost sight of or require explanation, and is particularly useful where each of the various Sales Ledgers and the Purchase Ledger is periodically balanced separately (this is always advisable), and thus transfers which would throw out the balance of the particular Ledgers concerned are not lost sight of.

The ruling may be the same in either case, and is as follows :

Date	Particulars	Folio	Details	Dr.	Cr.
			£ s d	£ s d	£ s d

Nominal Ledger.—

The Nominal Ledger contains accounts for Sales, for each of the various kinds of Materials purchased, Wages, and each different expense of the business, &c.

Its entries are made by postings from the Cash Book (mainly consisting of items of expenditure not entered through the Purchase Journal), the total amounts from the analysis columns of the Purchase and Sales Journals and Debit and Credit Books, and by transfers to or from the Private Ledger.

It is now proposed to give the ruling generally used for the Nominal Ledger, and two specimen accounts.

PAPER ACCOUNT.

Dr. *Cr.*

1915			£	s	d	1915		£	s	d
July 1	To Stock on Hand	..	..			Sep. 30	By transfer to Working Account	..	..	
" 31	" Purchases	Pur. Jl. 29	300	8	1			P.L.—		
Aug. 31	" Do.	" 35	292	17	4				..	
Sep. 30	" Do.	" 41	281	4	5				873	2	0
			874	9	10		" Stock on hand	..	..	
			£1,154	17	2				281	15	2
									£1,154	17	2

INK ACCOUNT.

Dr. *Cr.*

1915			£	s	d	1915		£	s	d
July 1	To Stock on Hand	..	48	9	10	Sep. 30	By transfer to Working Account	..	..	
" 31	" Purchases	Pur. Jl. 29	50	1	10			P.L.—		
Aug. 31	" Do.	" 35	47	8	11				..	
Sep. 30	" Do.	" 41	39	18	10				143	14	7
			137	9	7		" Stock on hand	..	..	
			£185	19	5				43	4	10
									£185	19	5

Private Ledger.—

The Private Ledger may be said to contain the concentrated essence of all the accounts of the business, for all other books of account are directly or indirectly contributory to it. If properly kept, the Private Ledger should really reveal all the salient points of the business, such as the capital employed in the concern, and to what extent it is invested in Plant, Fixtures, Buildings, and other securities, &c.; the private Withdrawals, Loans, the Banking Accounts, and all other private matters of account, including the periodical Accounts, showing net profit or loss, and also the Balance Sheet.

The following accounts are usually entered in the Private Ledger :—

Capital Account.—

In the case of businesses privately owned this account, in the first place, is opened by the posting, from the debit side of the Cash Book, the cash introduced into the business by the proprietor; and the balance varies from time to time from four causes—viz., introduction of additional capital, private withdrawals, the crediting of profits and interest on capital, and the debiting of losses.

The two former are posted from the Cash Book and the two latter are transferred from the Profit and Loss Account in the Private Ledger. In the case of Limited Companies there is a separate Capital Account for each class of shares issued.

Buildings.—

Where the Buildings are owned by the firm, an account should be opened under this heading, and the cost of the building charged thereto.

It should be stated on the heading whether the buildings are leasehold or freehold, and, if the former, the term of the lease, ground rent, &c., should be stated.

Plant and Machinery.—

Special accounts must be opened for the various classes of Plant and Machinery.

One reason alone demands that separate accounts shall be kept for each kind of plant, and that is that no general rate for depreciation can be safely fixed for all classes, as each requires to be considered upon its own merits. It is outside the scope of this chapter to deal more than generally with the question of depreciation (which is considered more fully in Chapter VIII), but it may be safely said that it is well to err on the liberal side as regards the rates of depreciation to be fixed, as it has the advantage of causing money to be left in the business (where only ascertained profits are withdrawn) which may be utilised for the acquisition of the most newly-invented machinery and appliances, and for other development of the business.

In the case of the introduction of new interests in, or for the purpose of selling, the business, it is usual to re-value the assets, and to reconsider the values shown in the books; and, if it is found that the plant has been unduly depreciated, it can easily be appreciated to its real value, and the amount of the appreciation added to the Plant Accounts and transferred to the Capital Account, or, in the case of a Limited Company to a Reserve Fund.

It is well for all Depreciations to be treated as Reserves, which are shown as deductions from the Plant and Machinery Accounts upon the Balance Sheet, as the Plant then stands in the books at its original cost, less machinery thrown out and scrapped, whereas if a high rate of depreciation is written off it shows a corresponding decrease in value, which if in excess of the actual might prove unsatisfactory evidence, if the figures were required for certain purposes.

Account with Bankers.—

This account is posted from the Cash Book in weekly or monthly totals, the amount paid into Bank being posted to

the debit side of the account and the amount withdrawn to the credit side.

This is the usual account of the banking transactions, but inasmuch as it is only posted periodically, and it is desirable to know more frequently the state of the account, a separate book, not forming part of the system, should be kept, and entered up daily, according to the exigencies of the business.

The totals of withdrawals from or payments into Bank are easily ascertained from the Cash Book, and, on being brought together in the following manner, systematically and after entering the starting balance, give the amount in hand or overdrawn daily.

BANK BALANCE BOOK.

		£	s	d
Aug. 15.	Balance in Bank	218	6	4
22.	Paid in this week as per Cash Book ..	482	9	6
		700	15	10
,,	Withdrawn from Bank this week as per Cash Book	217	0	2
,,	Balance at Bank	£483	15	8

WORKING ACCOUNT.

Before commenting upon the Working Account, it is thought well to give it in skeleton form, with the various items arranged in a convenient order.

Dr. WORKING ACCOUNT, Year ended..... *Cr.*

	Fo.	£ s d	£ s d		Fo.	£ s d	£ s d
To Paper				By Sales			
,, Ink							
,, Roller Clothing							
,, Blankets, &c							
,, Oil, Turps, and Sundries							
,, Wire and Thread for Binding				*Deduct*: Work-in-Progress at beginning of year..			
,, String and Rope							
,, Outwork							
,, Lino and Mono Metal ..				*Add*: Do. do. at end of year			
,, Stereo Metal							
,, Town Gas for Engines ..							
,, Electricity for Motors ..							
,, Anthracite for Gas Producer							
,, Wages							
,, Balance being Gross Profit carried to Profit and Loss Account			£			£	

All the Purchases, Wages, &c., will be transferred from their respective accounts in the Nominal Ledger, as explained in the earlier part of this chapter, and they relate to the actual "consumption" only, the adjustment of the purchases, in respect of increase or decrease of stocks, having been made in the accounts in the Nominal Ledger, prior to the balance being "struck" and transferred to the Working Account.

The credit side of the Working Account, as will be seen, consists of the total money value of Sales, which is obtained from the Sales Account in the Nominal Ledger, this account being previously debited monthly with the Returned Sales.

The only stocks which appear in the Working Account are those relating to "Work-in-Progress," which must include goods completed for customers and which await instructions to deliver, but are not yet charged to the customer. It is well to deal with these on the credit side of the account, for, by doing so, the absolute net cost of the production is obtained and the actual value of the completed goods which such net cost has produced. The percentage of gross profit on the cost and on the selling value can therefore be readily calculated.

The Profit and Loss Account next claims attention, and, at the outset, it is recommended that, under whatever headings the expenses are classified in the first place, these headings should be continued as far as possible for all time, as, if the arrangement of the figures or their analysis is altered, the value of the account for purposes of comparison is reduced.

The following is a skeleton form of Profit and Loss Account :—

Dr. PROFIT AND LOSS ACCOUNT, Year ended ..... *Cr.*

	Folio	£ s d		Folio	£ s d
To Rent			By Gross Profit from Working Account		
,, Rates and Taxes			,, Sundry Receipts		
,, Lighting			,, Discounts Received		
,, Office Salaries and Wages ..					
,, Travelling					
,, Insurance					
,, Stationery					
,, Postages, Telegrams, and Telephones					
,, Carriage					
,, Advertising					
,, Building Repairs					
,, Machinery Repairs and Maintenance					
,, Discounts and Allowances ..					
,, Professional Charges.. ..					

,, Bad Debts					
,, Depreciation— £ s d					
Buildings					
*Plant ..					
Type ..					
Fixtures ..					
Total Expenses ..					
,, §Balance, being Net Profit carried to Capital Account					
		£			£

* This item should be subdivided and the differing rates shown.

BALANCE SHEET.

This is prepared periodically, and is a statement showing the precise financial position of the business upon a given date. It is an enumeration of liabilities and assets in an abbreviated form.

Technically speaking, it is a statement of the balances of every open account in the books, and is, therefore, not an account to which items can be posted. A *pro forma* Balance Sheet is here given, with the various items arranged in the usual order :—

BALANCE SHEET, December 31st 1915.

Liabilities.	£ s d	£ s d	*Assets.*	£ s d	£ s d
To Amount due to Creditors			By Cash at Bankers		
Less Reserve for Discount			„ Amount due from Debtors ..		
			Less—		
			Reserve for Doubtful Debts ..		
			Reserve for Discounts		
			„ Stock on hand and Work-in-Progress		
			„ Freehold Properties		
			Less Depreciation Reserve ..		
			„ Leasehold Properties ..		
			Less Depreciation Reserve ..		
			Plant and Machinery		
			Less Depreciation Reserve ..		
			„ Type		
			Less Depreciation Reserve ..		
			„ Trade Fixtures and Fittings ..		
			Less Depreciation Reserve ..		
			„ Furniture		
			Less Depreciation Reserve ..		
„ Thos. Jones, Capital					
	£			£	

CHAPTER VIII.

DEPRECIATION AND "WEAR AND TEAR."

CASUAL reference has been made to the subject of Depreciation in a previous chapter, but, as the matter is one of considerable importance, the present chapter is devoted to it.

It is sometimes argued, and prima facie correctly, that if plant and machinery have been maintained, out of Revenue, in a thorough state of efficiency, it is unnecessary to write off or reserve any amount for depreciation. The theory of this argument may not easily be combated, but in actual practice it is found that some provision for depreciation must be made, for some depreciation actually occurs; and, in this age of invention, new economical workings are constantly being introduced, and must be adopted to ensure successful trading. Such inventions must necessarily depreciate the value of existing plant, and therefore "wear and tear" is not the only form of depreciation to be considered.

With regard to "Wear and Tear" no absolute rule can be laid down in any book as to the rate per cent. per annum to be fixed, as it somewhat depends upon the peculiar circumstances affecting any particular business. Further, the machines may be kept running during the day only, or may be running day and night. In the latter case it is obvious that the "wear and tear" must be calculated at a higher rate than in the former.

The question of the rates of depreciation to be fixed is of vital importance to the business, and these rates must include not only the actual "Wear and Tear," but also an amount for "Obsolescence."

Engines, Boilers, and Shafting should be depreciated at not less than 5 per cent. per annum.

Printing and Binding Machinery should be depreciated at not less than 7½ per cent. per annum.

Electric Motors should be depreciated at not less than 10 per cent. per annum.

Type should be depreciated at not less than 10 per cent. per annum, and often considerably more. Some prefer to re-value it annually.

Motor Vehicles used for trade purposes should be depreciated at not less than 20 per cent. per annum.

Special Machinery of a rapidly depreciating nature should be written down at special rates.

Fixtures, Fittings, and Furniture must also be suitably depreciated, and usually 7½ per cent. will amply cover these items.

Office utensils such as Typewriters, Adding and Calculating Machines, must be also depreciated. The rates vary considerably, but 20 per cent. will probably not be found too high a rate.

The question of depreciation of other assets such as Leases, Patents, Copyrights, &c., must not be forgotten, and these should be written down by annual instalments during the respective periods for which they exist.

MACHINERY REGISTER.

It is found most helpful, in most printing businesses, where any considerable number of machines are employed, for a separate record to be kept for each machine, and these records are entered in what is known as a "Machinery Register," in which each machine is entered upon a separate page. The ruling of the Register is as follows :—

Machine No. .....

Cost Price .....

From whom purchased.....

If new or second-hand when purchased .....

Maker .....

Agreed Rate of Depreciation per cent. per annum on original cost .....

Date Purchased .....

Date		Folio	Depreciation			Repairs			Capital Outlay		
			£	s	d	£	s	d	£	s	d
	Cost or Valuation										

It will be seen from the ruling that each machine is entered in the appropriate column at its cost or valuation price, whilst in another column is entered periodically the cost of its repairs, and in another the annual depreciation. By deducting the total depreciation from the original cost the net value of the machine is, of course, obtained, and the sum total of the net values of every machine, as shown in the Machinery Register, will agree with the value of Machinery as shown upon the Balance Sheet.

The advantages of the Register are obvious.

If a machine is thrown out, the remaining value on the books is at once arrived at and written off. Further, the Register proves that the figure appearing upon the Balance Sheet is really correct; and, thirdly, by recording against each machine its actual cost in repairs, a comparison is easy between machines of the same class, with the obvious result that the attention of the proprietors of the business is carefully drawn to those machines which are costing most in repairs, and the advisability of these particular machines being scrapped and replaced by new ones receives proper consideration.

The introduction of the Machinery Register is often objected to on the ground of the time involved in opening and recording in it, but when it has once been started it is always greatly appreciated.

With reference to the records of the repairs done to each machine, when these are undertaken by an outside firm the actual cost of each repair is easily ascertainable; but when the repairs are done by employees of the business, then careful records must be kept of time so spent and material used, and a percentage added to the former for use of tools and for a proportion of other expenses properly chargeable.

CHAPTER IX.

INCOME TAX.

It is not possible in this volume to include any full statement upon Income Tax, which is itself a complex subject and must necessarily always occupy a large amount of space; but it seems well to include here a few notes of general interest and some of particular interest to the Printing Trade.

To those who desire more detailed information upon this subject in a concise form, the author would refer them to the various text-books or to the published copies of various addresses which he has given upon this subject during the past few years.

All printing businesses are assessed under Schedule D, and the statutory profit for income-tax purposes in any year is based upon the average profits of the previous three years. It must, however, be borne in mind that these profits are not those actually shown in the accounts of the business but are arrived at after various adjustments have been made in accordance with the laws governing Income Tax. In certain exceptional cases the average profits are not taken.

There are certain "Special Reliefs" allowed where a business ceases to be carried on in certain cases, where from a "specific cause" the profits have fallen short, where a business has been set up within the three preceding years, and where a loss is sustained in any year.

There are certain abatements and reliefs allowed to individuals upon small "earned" and "unearned" incomes, and actual exemption where the total income is less than a fixed sum.

There are also allowances made for children.

It must be remembered that it is the "business" itself that is assessed and not the individuals owning it.

With regard to Depreciation of Plant and Machinery in printing works the Inland Revenue Department has recently stated that no objection will be raised to an allowance not exceeding 5 per cent. in respect of Engine Boilers and Shafting, and $7\frac{1}{2}$ per cent. in respect of Printing and Binding Machines. These allowances are, in accordance with Inland Revenue custom, to be calculated upon the diminishing value The Department also states that "type" is as a rule dealt with by way of an allowance of the actual cost of the renewals, as in the case of Loose Plant and Patterns; but, should depreciation be insisted upon, an allowance not exceeding 10 per cent. is assented to. Special and delicate machinery is to be dealt with in accordance with the facts in each case.

As a result of the efforts of the Chambers of Commerce throughout the country, depreciation is now allowed upon Fixtures and Fittings, and varies from 5 per cent. to 10 per cent. Depreciation is also obtainable upon "Office Appliances" such as Typewriters, Calculating Machines, &c., the rates for which vary considerably, and must be agreed according to the requirements of each particular business.

An assessment form must be filled in annually and forwarded to the Surveyor of Taxes or the Assessor of Taxes. In most cases a copy of the accounts for the past year is also required by the Surveyor, who, after examining it, raises queries and endeavours to agree the figures for assessment with the owners of the business, or more often with the

auditors or some other Chartered Accountant, as, in settling an assessment for income-tax purposes, the services of an expert are a great gain, and much money is often saved to the taxpayer.

If the Surveyor agrees the assessment, the formal agreement of the Commissioners follows, and it should be remembered that a taxpayer may elect to be assessed by the General Commissioners or the Special Commissioners. The former are gentlemen who voluntarily give their time to this work, and the latter are paid experts appointed by the Government.

If the assessment, when made, is not approved by the taxpayer, he must give notice of appeal against the assessment within ten days of its receipt, and he may then, if he so desires, notwithstanding that he elected to be assessed by the General Commissioners, make his appeal to the Special Commissioners. In either case, after giving notice of appeal, he will be asked probably to furnish further particulars, and in due course receive a notice of the time and place when the appeal will be heard, when he will attend, no doubt accompanied by his Accountant.

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